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10/516,308	12/14/2005	Stefan Uhrandt	262159US0PCT	3875
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
QIAN, YUN				
ART UNIT		PAPER NUMBER		
1793				
NOTIFICATION DATE		DELIVERY MODE		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary****Application No.**

10/516,308

**Applicant(s)**

UHRLANDT ET AL.

**Examiner**

YUN QIAN

**Art Unit**

1793

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 6, 7, 16, 17 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) 8-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6, 7, 16, 17 and 19-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB008)  
Paper No(s)/Mail Date 3/5/2009.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application.
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Status of Claims***

Claims 1-2, 6-7, 16-17 and 19-23 remain for examination. Claims 1 and 7 are amended. Claims 3-5 and 18 are canceled. Claims 22-23 are newly added claims. Claims 8-15 are previously withdrawn from consideration.

### ***Previous Grounds of Rejection***

The rejection under 35 U.S.C 112(2) with respect to claims 19-20 stands.

Regarding claims 1-7, 16-17, and 19-21, the rejection under 35 U.S.C.103 (a) as being unpatentable over Blume et al. EP 0983966 (herein referred to under the equivalent of US pat. 6,268,424) in view of Bomal et al (US 5,800,608) is substantially the same but has been modified to address the amended claims and also includes the newly added claims 22 and 23.

### ***New Grounds of Rejection***

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2, 6-7, 16-17, and 19-23 rejected under 35 U.S.C. 103 (a) as being unpatentable over Blume et al. EP 0983966 (herein referred to under the equivalent of US pat. 6,268,424) in view of Bomal et al (US 5,800,608).

Regarding claim 1, Blume et al. disclose a precipitated silica containing (abstract):

Precipitated silica having the following parameters:

BET surface area	80-180 m <sup>2</sup> /g
CTAB surface area	80-139 m <sup>2</sup> /g
BET/CTAB ratio	1.0-1.5
Sears No. (consumption of 3:1 N NaOH)	5-25 ml
DBP No.	200-300 ml/100 g
Al <sub>2</sub> O <sub>3</sub> content	<5%
wk coefficient	<3.4
Degraded particles	<1.0 μm
Non-degradable particles	1.0-100 μm

Although the CTAB surface area taught by Blume et al. is to some extent outside the instant claim 1, Bomal et al teaches a process of making precipitated silica containing CTAB between 140-200 m<sup>2</sup>/g (abstract), which overlaps the instant claimed. The references differ from Applicant's recitations of claims by not disclosing identical ranges. However, the reference discloses "overlapping" ranges, and overlapping ranges have been held to establish *prima facie* obviousness (MPEP 2144.05).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the specific surface area (CTAB) of Bomal to the composition of Blume et al, motivated by the fact that the precipitated silica taught by Bomal, is in the form of substantially spherical beads or of granules. It has excellent dispersibility and very satisfactory reinforcing prosperities in rubber compositions (abstract, col.9, lines 7-10). Since Blume and Bomal teach compositions of precipitated silica and have a reasonable expectation of success, the invention as claim 1 would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Regarding claim 2, the precipitated silica taught by Blume et al has an oil absorption capacity (DBP) 200-300 ml/100g, which is encompassed by the instantly claimed (abstract).

Regarding claim 6, the precipitated silica taught by Blume et al has a  $\alpha$  coefficient of 3.4 as the recited claim (abstract, and col.12, line 67 to clo.13 line 1).

Regarding claims 7 and 22, the precipitated silica taught by Blume et al contains organosilanes, represented by the formulas I to III shown below. They are encompassed by the instantly claimed (col. 4, lines 15-47).



or



in which

B denotes —SCN, —SH, —Cl, —NH<sub>2</sub> (when q=1) or —Sx— (when q=2),

R and R<sup>1</sup> denote an alkyl group with 1 to 4 carbon atoms, the phenyl radical, all radicals R and R<sup>1</sup> in each case being the same or having a different meaning,

R denotes a C<sub>1</sub> to C<sub>4</sub>-alkyl group or C<sub>1</sub> to C<sub>4</sub>-alkoxy group, n denotes 0, 1 or 2,

Alk denotes a divalent linear or branched hydrocarbon radical with 1 to 18 carbon atoms,

m denotes 0 or 1,

Ar denotes an arylene radical with 6 to 12 carbon atoms, preferably with 6 carbon atoms,

p denotes 0 to 1, provided that p and n do not simultaneously denote 0,

x denotes an integer from 2 to 8,

Alkyl denotes a monovalent linear or branched saturated hydrocarbon radical with 1 to 20 carbon atoms, preferably 2 to 8 carbon atoms,

Alkenyl denotes a monovalent linear or branched unsaturated hydrocarbon radical with 2 to 20 carbon atoms, preferably 2 to 8 carbon atoms, and

q denotes 1 or 2.

Regarding claims 16-17, the precipitated silica taught by Blume et al can be used in all rubber applications, particularly in tires as per applicant claims 16-17 (col. 6, line 52-col. 7, line 14).

Regarding claims 19-20, the precipitated silica prepared according to the method of Blume et al can be used in all rubber applications, particularly in tires (Example 1, col.9, lines 19-44, and col. 6, line 52-col. 7, line14).

Regarding claim 21, the precipitated silica taught by Blume et al can be used in battery separators as instantly claimed (col. 7, lines 15-17).

Regarding claim 23, as discussed above, Bomal et al teaches a process of making precipitated silica containing CTAB between 140-200 m<sup>2</sup>/g, which overlaps the instant claimed. The references differ from Applicant's recitations of claims by not disclosing identical ranges. However, the reference discloses "overlapping" ranges, and overlapping ranges have been held to establish prima facie obviousness (MPEP 2144.05).

### ***Response to Arguments***

#### ***With regards to the previous Grounds of Rejection***

Regarding claims 19-20 rejected under 35 U.S.C. 112(2), as the limitation of the precipitated silica initially is dependent on the claim 8, which is a non-elected a process of making group. For the purpose of examination, the Examiner interpreting the claims 19-20 are dependent on claim 1.

Applicant's arguments filed 4/3/2009, with respect to claims 1-7, 16-17 and 19-21, have been considered but are moot in view of the new ground(s) of rejection.

Nonetheless, the examiner would like to take this opportunity to address some of the Applicant's arguments.

Regarding the prior art taught by Bomal et al. (US 5,800,608), applicants argue that Bomal et al. does not specifically disclose the modified Sears number V2 and has a very preferably BET/CTAB surface ratio of between 1.0 and 1.2.

Applicants' arguments are not found persuasive because Blume et al. (US 6,268,424) teaches the Sear Number (5-25 ml) and ratio of BET/CTAB (1.0-1.6). They are encompassed or overlapped by the present application.

In response to applicant's arguments against the references individually, it is not necessary for this secondary reference (Bomal et al.) to contain all the features of the presently claimed invention. Rather this reference teaches a certain concept, namely having a CTAB surface area up to 200 m<sup>2</sup>/g, and in combination with the primary reference, discloses the presently claimed invention.

One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Therefore, the rejection stands.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUN QIAN whose telephone number is (571)270-5834. The examiner can normally be reached on Monday-Thursday, 10:00am -4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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/J.A. LORENZO/

Supervisory Patent Examiner, Art Unit 1793

/YUN QIAN/

Examiner, Art Unit 1793